

FIG. 1

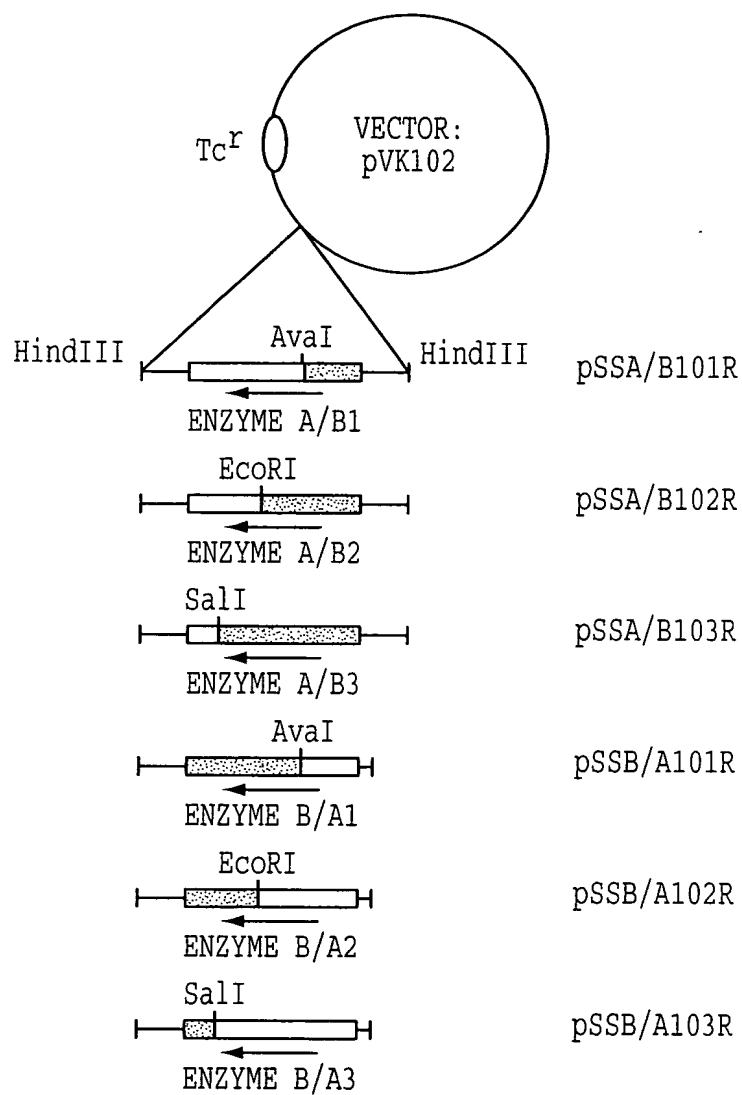
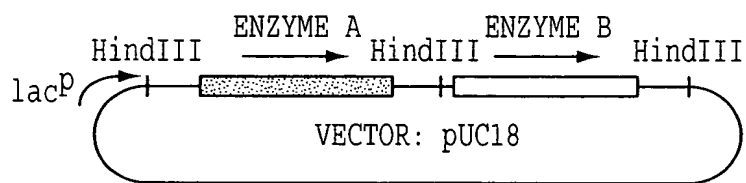


FIG. 2

pSSAB201



pSSBA201

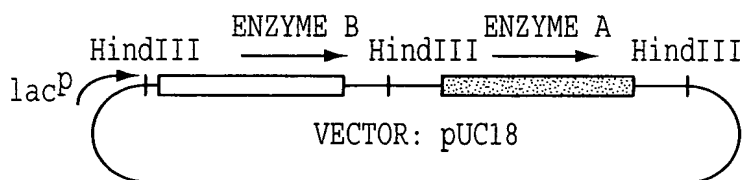
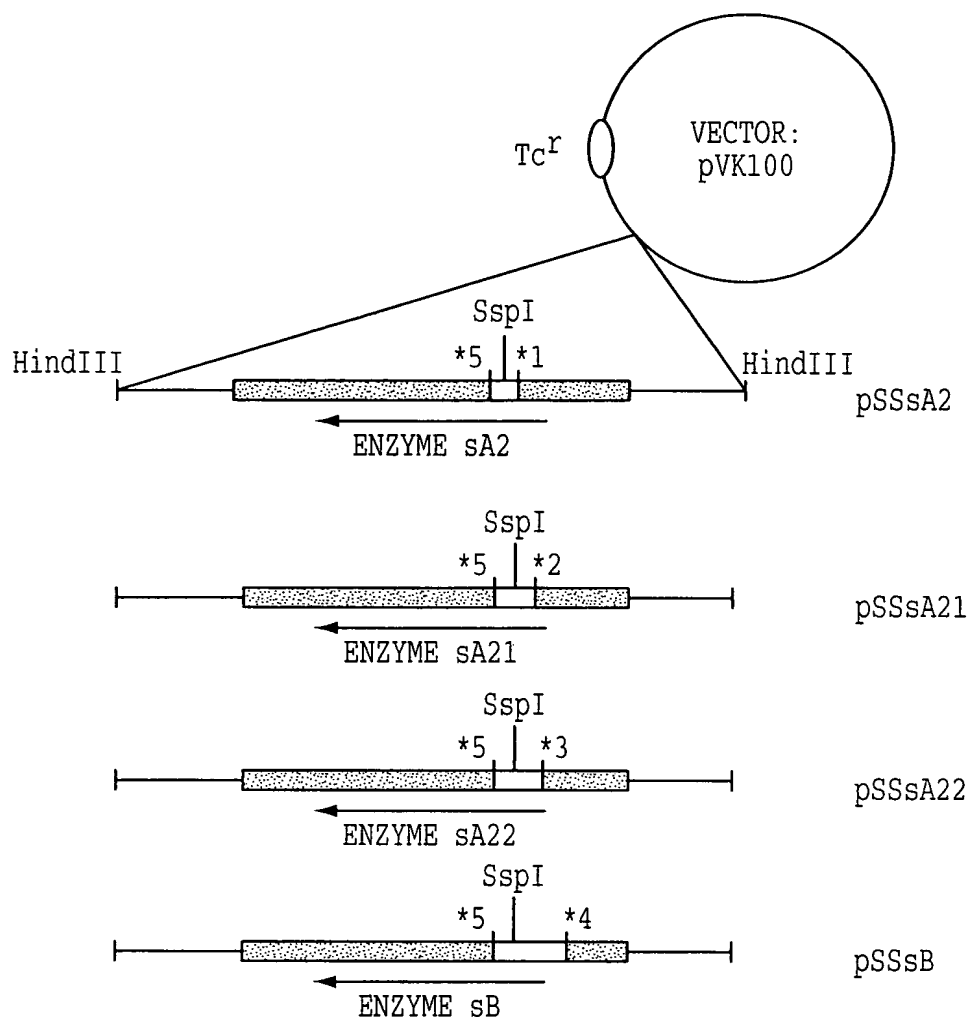


FIG. 3



RECOMBINATION SITE

- *1 : AMINO ACID RESIDUE NO. 135 OF MATURE ENZYME A
- *2 : AMINO ACID RESIDUE NO. 128 OF MATURE ENZYME A
- *3 : AMINO ACID RESIDUE NO. 125 OF MATURE ENZYME A
- *4 : AMINO ACID RESIDUE NO. 95 OF MATURE ENZYME A
- *5 : AMINO ACID RESIDUE NO. 180 OF MATURE ENZYME B,
 WHICH NUCLEOTIDE SEQUENCE OF *Ava*I SITE ENCODES

FIG. 4

ENZYME A 1 : QVTPVTDELL ANPPAGEWIS YGQNQENYRH SPLTQITTEN VGQLQLVWAR GMQPGKVQVT

 ENZYME B 1 : QVTPITDELL ANPPAGEWIN YGRNQENYRH SPLTQITADN VGQLQLVWAR GMEAGAVQVT

61 : PLIHDGVMYL ANPGDVIQAI DAKTGDLIWE HRRQLPNIAT LNSFGEPTRG MALYGTNVYF
 * *****

61 : PMIHDGVMYL ANPGDVIQAL DAQTGDLIWE HRRQLPAVAT LNAQGDRKRG VALYGTSLYF

*

AvaI

121 : VSWDNHLVAL DTATGQVTFD VDRGQGED-M VSNSSGPIVA NGVIVAGSTC QYSPFGCFVS

121 : SSWDNHLIAL DMETGQVVFD VERGSGEDGL TSNTTGPIVA NGVIVAGSTC QYSPYGCFFS

180 : GHDSATGEEL WRNYFIPRAG EEGDETWGND YEARWMTGAW GQITYDPVTN LVHYGSTAVG

181 : GHDSATGEEL WRNHFIQPG EEGDETWGND FEARWMTGVW GQITYDPVTN LVFYGSTGVG

240 : PASETQRGTP GGTLYGTNTR FAVRPDTGEI VWRHQTLPRD NWDQECTFEM MVTNVDVQPS

241 : PASETQRGTP GGTLYGTNTR FAVRPDTGEI VWRHQTLPRD NWDQECTFEM MVANVDVQPS

*

EcoRI

300 : TEMEGLQSIN PNAATGERRV LTGVPCKTGT MWQFDAETGE FLWARDTNYQ NMIESIDENG

301 : AEMEGLRAIN PNAATGERRV LTGAPCKTGT MWSFDAASGE FLWARDTNYT NMIASIDETG

360 : IVTVNEDAIL KELDVEYDVC PTFLGGRDWP SAALNPDSGI YFIPLNNVCY DMMAVDQEF

361 : LVTVNEDAVL KELDVEYDVC PTFLGGRDWS SAALNPDTGI YFLPLNNACY DIMAVDQEF

*

Sali

420 : SMDVYNTSNV TKLPPGKDMI GRIDAIDIST GRTLWSVERA AANYSPVLST GGGVLFNGGT

421 : ALDVYNTSAT AKLAPGFENM GRIDAIDIST GRTLWSAERP AANYSPVLST AGGVVFNNGT

480 : DRYFRALSQE TGETLWQTRL ATVASGQAIS YEVDGMQYVA IAGGGVSYGS GLNSALAGER

481 : DRYFRALSQE TGETLWQARL ATVATGQAIS YELDGVQYIA IGAGGLTYGT QLNAFLA-EA

540 : VDSTAIGNAV YVFALPQ

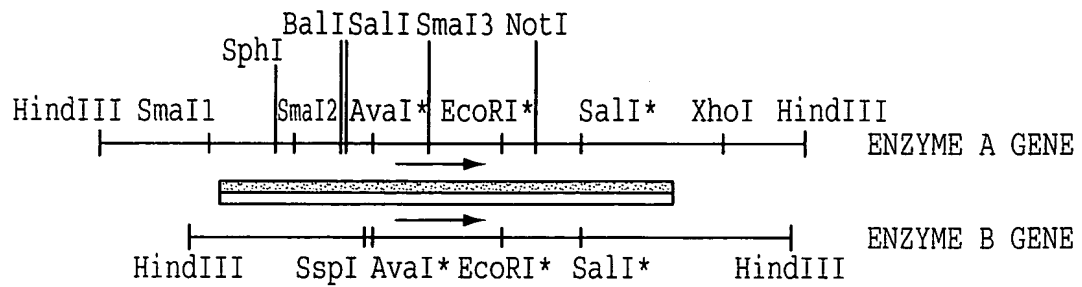
540 : IDSTSVGNAL YVFALPQ

* : NUCLEOTIDE SEQUENCES ENCODING THESE REGIONS ARE THE RESTRICTION SITES
 FOR AvaI, EcoRI, AND Sali WHICH WERE USED FOR CONSTRUCTING CHIMERA
 GENES SHOWN IN FIG. 2.

FIG. 5

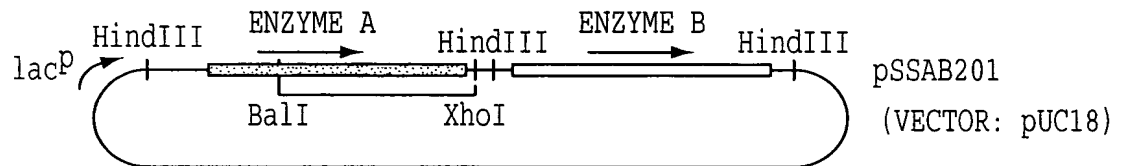


Fig. 6

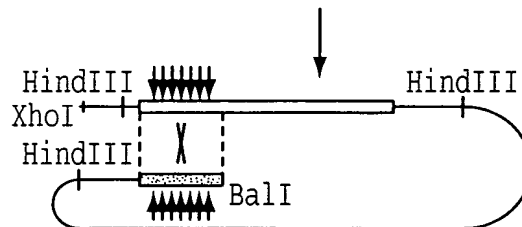


*: AvaI, EcoRI, SalI SITES USED FOR CONSTRUCTING CHIMERA GENES SHOWN IN FIG. 2 AND 6.

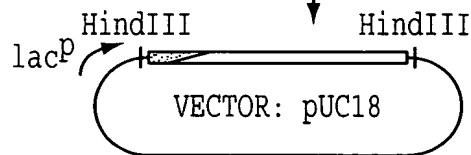
FIG. 7



LINEARIZATION WITH XhoI AND BalI



TRANSFORM *E. coli* JM101 (*rec A*+)



VARIOUS KINDS OF CHIMERA GENES CAN BE OBTAINED.

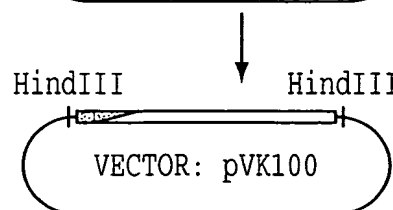


FIG. 8

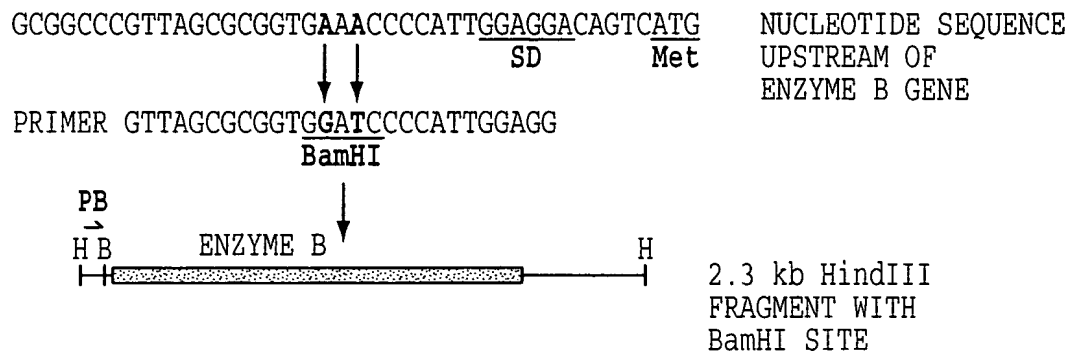


FIG. 9

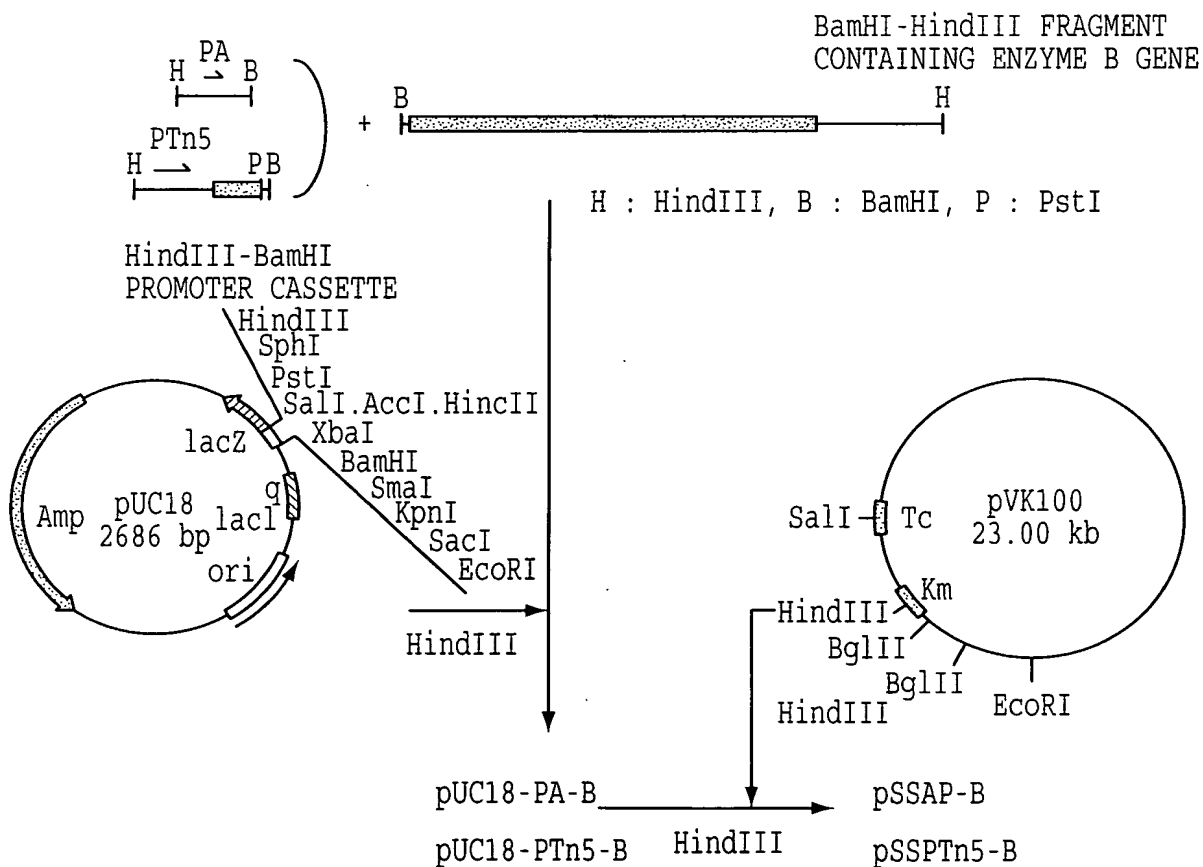


FIG. 10

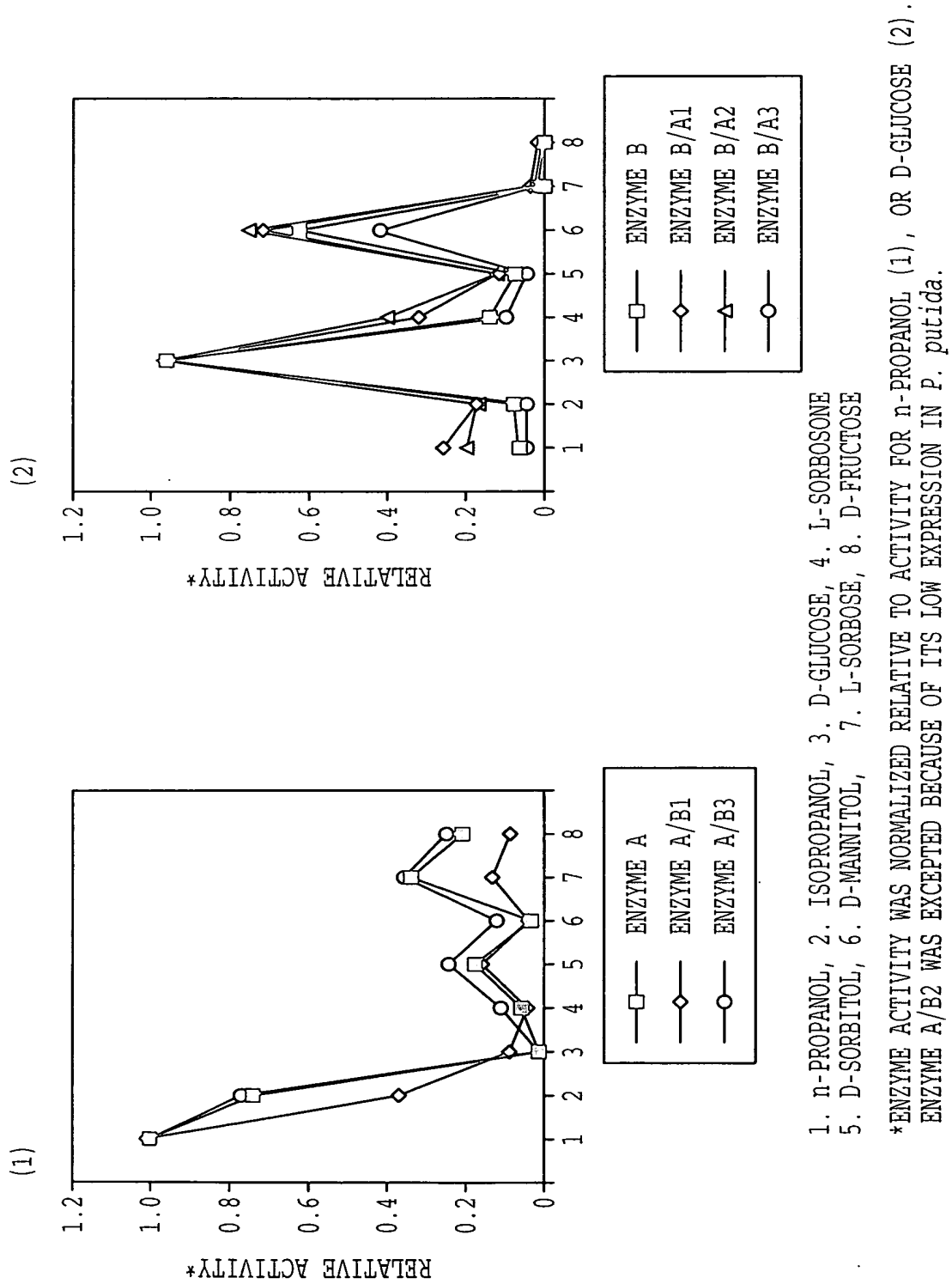


FIG. 11